

The Concept of *Inochi*: A Philosophical Perspective on the Study of Life

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The objective of this paper is to contribute to the international discussions on life and scientific technology by examining the images and concepts of life in contemporary Japan. In English the word *Inochi* can be rendered as "life". However, the nuances of the Japanese term differ in certain cases, and therefore I have chosen to use the term much as is. I first discuss the linguistic meanings of the word, and then consider several important features of the images of *inochi* that have appeared in publications and responses from questionnaires on this topic. Some philosophical and metaphysical interpretations of the concept of *inochi* are then proposed. Finally, a brief outline of the study of life is presented, suggesting a new way to approach bioethics and discussions on environmental issues.

Keywords: LIFE, SCIENCE AND TECHNOLOGY, MODERN CIVILIZATION, NATURE, JAPANESE THOUGHT, BUDDHISM, CONFUCIANISM, BIOETHICS, ENVIRONMENTAL ETHICS, HUMAN ECOLOGY, PHILOSOPHY, RELIGION.

SCIENTIFIC TECHNOLOGY, LIFE, AND THE ENVIRONMENT

Modern civilization is characterized by industrialization and advanced scientific technology. It has developed through this century, and as a result, it has brought us great benefits and conveniences. However it is also true that it has caused a number of problems and crises concerning our attitudes toward life and the environment.

Today we face, on the one hand, global environmental issues such as the destruction of the ozone layer, and on the other hand, ethical problems arising from medical technology such as those associated with freezing early human embryos that are only a few cells. We should regard these problems as a set of interconnected ethical-social issues, because all these matters have been caused by the fundamental invasion of scientific technology into the realm of 'life' on this planet.

I have elsewhere advocated 'the study of life' as a comprehensive approach to all the problems arising from our attitudes toward life, the life of humans and of all other living creatures.¹ From the viewpoint of the study of life, a number of ethical and social problems of our age can be discussed at the same time in the same way.

For example, environmental pollution caused by chemical factories, clearly appar-

ent to Japanese people in the 1960's (in the *Minamata* and other cases), was one of the first instances which indicated that the conduct of modern scientific and industrial civilization had done structural harm to human life and local ecosystems. The growing global environmental crisis became more apparent through the 1970's and 80's, and has become one of the most important international political issues in the 1990's. The main cause of the environmental crisis lies in the fact that the industrialized nations have underestimated the interrelatedness of our life and biosphere on this planet when making plans for their own industrialization and development.² All forms of life on the earth, including humans and non-human organisms, constitute complicated and interrelated networks. Interrelatedness of this kind is one of the essential features of the images and concept of life (*inochi*) as we shall discuss later in this paper.

Let us consider the ethical issues arising from contemporary gene technology. Today we can easily cut and paste portions of the DNA sequence of organisms, including human beings, and then modify the genome of any organism using recombinant DNA techniques. The technology of genetic engineering has become the basic method for biological research in universities and corporations throughout the world. However, many ordinary people may remain unconvinced of the technology which might lead us to play the role of God. The inclination of scientific technology that seeks to deal with parts of a living creature as if they were parts of mere inorganic matter has made ordinary people hesitant to fully accept this technology. In other words, at the basis of these feelings, there are doubts about scientific technology in which life is considered to be merely like a mechanical clock. For people who have an organic or holistic view of the universe,³ life is a kind of self-organized system, which is born from the network of life, grows in relationships with other creatures, transforms its body and shape, gives birth to other life, and finally goes on to die. However, gene technology deals with DNA, the most fundamental part of a living cell, as if it were only part of an automobile or a bicycle. It is said that the principle of this technology was originally invented and developed in order to control the inorganic side of an object. This shows that one of the important ethical problems concerning biotechnology emerges between an organic-holistic view of life and mechanistic approaches in gene technology.

When scientific technology is applied to human life it can raise many other serious ethical and social problems. For example, we can fertilize ova and sperms *in vitro* outside the body (IVF), and then freeze surplus embryos, storing them for subsequent medical procedures for an infertile couple. Moreover, in many countries, we can scrap

1 'The study of life' is a translation from the Japanese *seimeigaku*. These words were first introduced when I published *Seimei Gaku eno Shotai (An Invitation to the Study of Life)*, in 1988.

2 B. Commoner expresses this as "everything must go somewhere". (Commoner, 1971)

3 There are no objective statistics that show the Japanese view of the universe. Through interviews and questionnaires, I formed the impression that most Japanese have an organic or holistic view of the universe and the life-world.

surplus embryos or use them for scientific and medical research within 14 days after fertilization. (In Britain embryos can be specifically made for research.) We can also inspect the DNA sequence and other important factors of embryos at their early stage, and destroy them if a serious defect is discovered. A fertilized embryo, even if it is frozen, has the potential to become a human person. However, that possibility disappears when we scrap or make experimental use of it. How should we then evaluate the life of a human being who was conceived only to be a subject for medical research? Don't we have to respect human life when it is at the very early stage?⁴ Isn't it just like playing the role of God (or the Devil) to perform the 'selective disposal' of defective embryos?⁵ Here we encounter a collision between the nature of scientific technology and one of our basic traditional norms: 'respect for life'.⁶

A number of ethical, social and religious problems have arisen simultaneously between life and scientific technology late in this century. These problems have been studied separately in several disciplines, such as bioethics, human ecology, medical anthropology, the philosophy and sociology of science, environmental ethics, and so on. However, I believe all these problems concerning life and scientific technology should be dealt with simultaneously and comprehensively in the same field, that is the study of life, because they share a fundamental background and several important questions, and because they are inseparably interconnected with each other.

Through the comprehensive study of life, we will be able to fundamentally criticize modern civilization which has been guided by science and technology. And we will also be able to seek new relationships between life and scientific technology which will never produce as many problems as they have in this century.

MEANINGS OF *INOCHI* IN MODERN JAPANESE

Before investigating the relationship between life and scientific technology, we first have to clarify what life is. However, this has been one of the most difficult questions humans have encountered, and no universally acceptable definite answer has appeared since the dawn of civilizations. Many religions have made clear the concept of life

- 4 Some bioethicists who maintain the 'person argument' answer in the negative to this question.
- 5 This question shares some important points with that of abortion. Some bioethicists support abortion as a woman's right. See Thomson (1971).
- 6 We can easily find the same conflict in recent controversies on brain death and organ transplants in Japan. Throughout the 1980's there were nation-wide debates on whether we should resume heart transplantation from a brain-dead person, which was performed at Sapporo Medical University in 1968 and has long been a taboo in our society because of a dubious determination of brain death and the failure of the transplantation in the Sapporo case (Nakajima, 1985). One of the main points in the brain death debates in Japan in the 1980's was whether the dignity of a brain-dead person and his/her family's rights are protected during the process in the intensive care unit and operating room. We should regard this as a collision between respect for life and advanced medical technology, because a national survey shows nearly half of the Japanese people hesitate to think of a brain-dead person as being dead. See also Morioka (1989).

within its own paradigm, and philosophers and biologists have defined it in their own ways. These definitions sometimes contradict each other. What is more important, traditional religious beliefs have not provided a world view powerful enough to elucidate the essence of today's situations surrounding life. They have yet to explain, for example, the nature of industrialization and its effects on life; the meaning of the advanced nations' affluent human life which has been brought about through the development of science, industry and imperialism; the historical meaning of global environmental crises in this century, and so on.^{7,8}

What we have to do now is to seek a contemporary understanding of life which describes these situations broadly, can appreciate the fundamental significance of life, and will be accepted by a number of people with different cultures and religions.

As the first step toward this understanding, I have investigated images of life among modern Japanese people by using open questionnaires. In this paper, I will report on some of the main features of the images of life that appeared in the questionnaires and also in publications on life, and then advocate philosophical interpretations of the concept of life. There are few academic publications which deal with the concept of life (*inochi*) among modern Japanese. For example, Nakamura (1987) analyses the concepts of life, but mainly those which appeared in ancient Asian thoughts. The objective of this paper is to contribute to world-wide discussions on life and scientific technology by examining the images and concepts of life in contemporary Japan.

In modern Japanese there are two words, *inochi* and *seimei*, which are equivalent to the English word 'life'. The word *inochi*⁹ (pronounced 'ee-know-chee') is commonly used among ordinary Japanese when they refer to everyday phenomena concerning life, death, and nature, while the word *seimei*¹⁰ does not enjoy such a wide use. *Seimei* is an academic word mainly used in the fields of biology, medicine, philosophy, and law. Historically speaking, the word *seimei* was rediscovered from old usages when

- 7 Among traditional religions, Christianity has played the most important role in modern medical ethics, in particular, in the problems of abortion and euthanasia. During the last few decades the Catholic position has played an initial stimulating role in medical ethics.
- 8 Here I do not intend to suggest that religious approaches are meaningless nor that religion itself is meaningless. I believe life is a religious matter. What I want to condemn is the attitude of some religious groups which persist in one traditional interpretation of holy principles and exclude the possibility of another religion, or who close their eyes to contemporary ethical and social issues.
- 9 In Japanese, there are three ways of writing the word *inochi*: first, using the *hiragana* syllabic alphabet, thus: いのち; second, with the *katakana* syllabic alphabet, thus: イノチ; and third, using Chinese characters, thus: 命, or 生命. The first and third are popular. The second is rare today.
- 10 We write the word *seimei* by using only the Chinese characters 生命. These Chinese characters are the same as those for *inochi*. This means that these characters can be read either as *seimei* or as *inochi*. The writer can designate the way of reading by *furigana* (hiragana printed at the side of the Chinese characters to indicate the reading). When there is no *furigana*, the reader should select the reading of the Chinese characters for himself/herself.

translating the European words 'life', 'vie', and 'Leben' in the Meiji era (19th century), and Japanese have accepted it as an academic and/or scientific term. The word *inochi* has a much longer history than *seimei*. This word is found in ancient literature such as the *Man'yōshū* and *Kojiki* (8th century). *Inochi* has become established as one of the most popular words in Japanese. Today even a primary school student knows the word *inochi*, but he/she doesn't necessarily know the word *seimei*. Hence, when studying the images of life in contemporary Japan, it is the images of *inochi* that should be researched.

Inochi in modern Japanese has three linguistic origins, namely, Chinese, Buddhism, and ancient Japanese. *Ming*¹¹ in ancient Chinese corresponds to *inochi*. The original meaning of *ming* is to order someone to do something. The well known phrase *tian ming*¹² (man's destiny determined by the transcendent being) is a derivation from this meaning. The ancient connotations of *ming* include 'destiny', 'lifespan' and 'one's nature' which are determined in advance by the transcendent being.

The *ming* which appeared in Buddhist sutras written in Chinese characters has one other meaning: the energy or power of living. In fact, we can find in some sutras words that contain *ming* which stand for the principle or power that makes something alive from behind that being.¹³

Inochi in ancient Japanese has meanings such as 'lifespan' and 'the power of living', because it had already been influenced by the meanings of *ming* imported from the Korean peninsula and China. The word *inochi* is considered to be made up of *i* and *chi*. The former stands for 'breath', and the latter stands for 'inside' or 'dynamic energy'. Hence, *inochi* in ancient Japanese has, in addition to the above, the meaning of the dynamic energy of living in breath, which is equivalent to *anima* in Latin or *psyche* in ancient Greek, which is also a derivative of breath.

In modern Japanese, *inochi* basically has four meanings. The first meaning is the mysterious power or energy that keeps creatures and humans alive. For example, there are such expressions as 'wash one's *inochi*',¹⁴ which means the recovery of power that keeps us alive; 'at the height of *inochi*',¹⁵ which means the peak of a creature's life; and 'burn up one's *inochi*',¹⁶ which means to burn up one's energy of living (and die). There is also the expression 'to take over *inochi* from one's ancestors'. This phrase means the succession of the dynamic power of living from generation to generation, rather than the succession of a living state. These meanings have a close relationship to the meaning of *inochi* as the energy of breath. On the one hand, breath makes an individual creature alive inside its body, but on the other hand, breath flows out of

11 命.

12 天命. This phrase is to be found in the *Analects of Confucius*, ch. *Zi-han*.

13 For example, 命気 and 命根.

14 (In Japanese) *inochi no sentaku*.

15 (In Japanese) *inochi no sakari*.

16 (In Japanese) *inochi ga moe tsukuru*.

an individual and then slips into another individual's body. In this way, *inochi*, in the form of breath, incessantly interconnects all living creatures on the earth synchronically and diachronically.

The second meaning of *inochi* points to the period between birth and death, or the state of being alive. There are some expressions which stand for dying such as '*inochi* ends', 'lose one's *inochi*', and 'drop one's *inochi*'.¹⁷ There are other interesting expressions such as '*inochi* shrinks',¹⁸ which means to encounter a danger; 'one's *inochi* is short',¹⁹ which means that there remains a short time until one's death; 'deposit one's *inochi* with somebody',²⁰ which means to leave one's destiny under somebody's control; and 'pick up one's *inochi*',²¹ which means to escape death accidentally. There are many more expressions that fall under this category in modern Japanese. At the root of all of these expressions there is an understanding that *inochi* is limited in time and space. In other words, *inochi* has its beginning and end, and thus an '*inochi* being (*inochi arumono*)' must die sooner or later; at the same time, one's *inochi* is completely different from another *inochi* in its existence and its death. Therefore, one can never die *with* another, only die one's own death. The first meaning of life energy and the second of being alive seem to contradict each other. We shall discuss this point further later on.

The third meaning is 'the most essential part' of an object. For example, 'to take away something's *inochi*'²² does not mean to kill it, but to take away its most important and essential quality—that is, for example, the function of bodily movement in a dancer, or the beautiful song of a canary. This word is sometimes applied to non-living things, such as 'the *inochi* of a doll'.²³

The last meaning of *inochi* is eternal life. The phrase 'eternal *inochi*' is to be found in religious materials written in Japanese. For example, Christianity in Japan preaches that we obtain eternal *inochi* through belief in God, and the *Jodo* sects of Buddhism preach that we obtain eternal *inochi* in *Sukhavati* (*Jodo, the Pure Land*) in the next world.²⁴

There is a great variety of usages for the word *inochi* in modern Japanese, but these are basically variations on a theme which can be classified under one of the four categories mentioned above.

IMAGES OF *INOCHI* AMONG CONTEMPORARY JAPANESE

—an introduction to data acquired from questionnaires—

We have made clear the linguistic meanings of *inochi* in modern Japanese in the previous section. Here we turn our attention to images of *inochi* among contemporary Japanese.

17 (In Japanese) *inochi ga owaru, inochi wo ushinau, inochi wo otosu.*

18 (In Japanese) *inochi ga chijimu.*

19 (In Japanese) *inochi ga mijikai.*

20 (In Japanese) *inochi wo azukeru.*

By the term 'images of *inochi*' I mean a set of images, impressions, feelings, representations, notions, ideas, and thoughts which are held in relation to the word *inochi*. Although it is virtually impossible to investigate the images of *inochi* of all Japanese people, an investigation of the diversity and patterns of the images of *inochi* through open questionnaires and interviews holds great significance for our initial research on the topic.

I have conducted surveys using open questionnaires, since 1989, in order to grasp the images of *inochi* held amongst ordinary Japanese.²⁵ Here I present some of the representative replies and suggest the core images of *inochi* to be found among them.

The only question in the questionnaires is: Will you please express freely, in sentences and/or pictures, the images which come to mind when you hear the word *inochi*, and/or any ideas you have on *inochi*.²⁶

The replies are diverse and demonstrate extraordinary imagination. I would like to be able to present all the interesting replies, but unfortunately it is impossible in this paper.

For example, this is from a student nurse in Tokyo.

Inochi is an irreplaceable thing equally presented to humans, animals and plants. *Inochi* is the only thing that all people have equally. We can lead an everyday life because we have *inochi*. I think we should keep in mind that one's *inochi* is supported by a lot of other people. (age: 10-19/sex: female/occupation: student nurse/religion: —)²⁷

This is a brief and to-the-point description that shows some of the typical images of *inochi* held by the Japanese. In this reply there are four important propositions on

21 (In Japanese) *inochi biroi*.

22 (In Japanese) *inochi tori*.

23 (In Japanese) *ningyo no inochi; ningyo wa kao ga inochi*.

24 It is strange that there is no example of the last meaning even in the most influential Japanese dictionaries, Iwanami's *Kojien* and Shogakukan's Japanese dictionary. In this usage, the concept of eternity also exists in the word *inochi* itself.

25 This research is ongoing. I intend to continue until the turn of the century. The questionnaire, a white paper 36.3 cm high and 25.5 cm wide, has only one question at the top and a check list of attributes at the bottom. Hence a respondent can freely express his/her images of *inochi* in words, in sentences, and even in the form of cartoons and pictures. Names and complete addresses are not required. I have already collected several hundreds replies, and the age/sex/occupation/religion of the respondents are diverse. Because this is a preliminary report of this research, I have, as yet, no conclusions. I plan to publish all the important replies with the objective statistics after the research is completed. I also plan to carry out the same research overseas in the future. I conducted an *inochi* image survey similar to this one when I was a researcher of the *Kihara Memorial Foundation* in 1986. A part of the results was published in Morioka (1987a).

26 (In Japanese) '*inochi*' to iu kotoba wo kiite kokoro ni ukabu imeiji ya, '*inochi*' ni tsuite fudan kangaete iru koto nado wo, bunsho ya e de, jiyu ni kaite kudasai.

27 The sign '—' indicates no answer.

inochi. First, all living creatures, including humans, animals, and plants, have *inochi*, and this is equally given (from somewhere/somebody). In other words, humans and all creatures are equal from the viewpoint of *inochi*. Second, *inochi* is an irreplaceable thing. This means that one's *inochi* cannot be replaced by any other *inochi*. My *inochi* is mine, not yours. The rabbit's *inochi* in front of you is its, not yours. Irreplaceability is, as we shall see later, one of the most important features of *inochi*. Third, we can live because we have *inochi*. In other words, *inochi* keeps us alive. We should remember one of the linguistic meanings of *inochi* which stands for energy or power that keeps us alive. And fourth, one's *inochi* is supported by a lot of other people. This means that *inochi* exists by virtue of the surrounding mutual support networks of *inochi* beings. And the respondent's original sentence suggests that we often forget this truth.

There are a number of replies in which the words standing for images of *inochi* are simply listed. The following are examples of this.

Images coming to my mind: a baby, a human being, pregnancy, love, to live, death, something important, dignity, impossible to resuscitate, the universe. (20-29/female/housewife/—)

1. Myself 2. relatives 3. friends 4. humans 5. the earth 6. the universe 7. myself. These images come to mind nearly in this order. I think of them as important. (30-39/male/retailer/—)

Children, adults, human being, food, nature, the sea, the sky, a mountain, the murmur of brook, the sound of the wind, eternal *inochi*, the ground, something destroying nature, nuclear power plants, war, Hiroshima, Nagasaki, Bikini Atoll, environmental disruption, radioactivity, pesticides, the earth, the universe, the phoenix by cartoonist Tezuka Osamu, something warm, something I want to treasure, the exploitation of the wilderness for resorts, mother's love, *seimei*, the ground, the *inochi* of all creatures, finiteness. There are many other words. However, I will stop writing here because the series can go on forever. (30-39/female/primary school teacher/no religion)

The images spread widely from oneself to the universe, from humans to all creatures and the earth itself. Some replies like the third one, refer to 'radioactivity' and/or 'pesticides'. We cannot ignore the influence of Japanese anti-nuclear power plant protests and ecology movements which have used the word *inochi* as one of their key concepts in recent years.²⁸ It is impressive that all three cited replies mention the image of the universe. In a sense, we can conclude from this that the three respondents grasp *inochi* in some religious context, though they do not have any

28 For example, the title of an anti-nuclear power plant newsletter issued by women in Ishikawa prefecture is: *No Nuclear Power Plants for Future Inochi!*

particular religion. Many women say that images of a baby and a state of pregnancy come to their minds when hearing the word *inochi*, while most men don't. The third reply is interesting in that it contains two completely opposite concepts: namely 'eternal *inochi*' and 'finiteness'.

Here is another example of the image of *inochi* which refers to the universe, which reminds me of passages from Pascal's *Pensées*.²⁹

Inochi is sacred on the one hand, and fleeting³⁰ on the other. *Inochi* is sacred in that it was born from only one mother and one father who live on the earth, which is only a small planet among innumerable ones with living creatures throughout the universe. However, it is fleeting in that it is no more than one *inochi* among an astronomical number of *inochis* in the universe. (30-39/male/office worker/no religion)

There are a number of replies which stress a chain of *inochis* on this planet. The following are typical illustrations.

We human beings are only one species out of all living creatures supported and sheltered by nature. A chain of all *inochis* has circulated, from the past to the present, in the bosom of the natural world on earth. . . . *Inochi* can exist only in a circulating plane where a new *inochi* repeatedly revives from the death of former individual *inochis*. (60-69/male/farmer/—)

Just as a line consists of an infinite number of points, our individual *inochis* are connected from the past to the present, and to tomorrow. . . . I have three children, ten, seven, and two years old. My children's *inochis* have come out of me, but my children's *inochis* are not mine. They are theirs. (30-39/female/housewife/—)

Both respondents grasp a finite individual *inochi* in contrast to an infinite chain or line of *inochis*. The former stresses the importance of the chain, and expands the extent of the notion to include all creatures on earth. It is interesting that in this reply there is the notion of 'death and revival'. We often encounter this notion in such materials that approach the phenomenon of life in a religious or holistic way. We should note that, in this type of approach, the death of an individual *inochi* is sometimes made light of, while more importance is placed on the chain itself. The latter seems to stress, to the contrary, the individuality of each *inochi*, while admitting that each individual *inochi* cannot exist apart from the line. She restricts the extent of the line to include only humans. This illustrates the variety of images of life amongst the Japanese.

29 Blaise Pascal, *Pensées*. Lafuma (1963), ch.174-177.

30 (In Japanese) *hakanai*.

As we shall mention later, there have been many publications discussing *inochi* in recent years. The authors are, for the most part, professional writers or talented people who have already published books or articles. Hence, strictly speaking, these *inochi* publications are not the products of ordinary people, and thus one of the merits of research through open questionnaires is the opportunity to collect expressions on *inochi* from ordinary people that would not normally reach publication.

During the course of my work in this survey I have come across some extraordinary replies which show excellence in their scope and depth. The following is such an example.

When written in *hiragana*, *inochi* has broader meanings than *seimei*. I feel that it means something which embraces one's whole life, one's mind, one's way of life, love, and whole human existence. And I think one's *inochi* is something that is entirely given. I think *inochi* is irreplaceable because we cannot get it at all by our own will, nor with effort, nor with money. . . . If my *inochi* is irreplaceable, then others' *inochi* must be the same. Others' *inochis* are connected to mine, and all these are in the stream of a large *inochi*. *Inochi* is, on the one hand, each individual being, unique and irreplaceable. On the other hand, however, it is one large *inochi* of the whole human race. . . . Aren't such formless reminders of a deceased person, such as influence, impression, his/her way of life, thought, and religious belief a part of *inochi*? In this sense, I think *inochis* could be taken over, be connected, and meet each other beyond space and time. (30-39/female/housewife/Christian)

First this respondent stresses that *inochi* has broader meanings than *seimei*, and then she goes on to say that it embraces the whole of life, mind, a way of life, love, and all of human existence. She seems to emphasize that *inochi* should not be understood simply by a single property, such as an ability to breathe or just a brain function, but more that it should be grasped as a comprehensive whole, from every aspect. In the latter half of the first paragraph she refers to *inochi* as something given, and to its irreplaceability.

Second, in the middle of this reply, she presents a dialectical logic that each *inochi* is an individual irreplaceable *inochi*, and at the same time, that *inochi* itself is a large stream that embraces all individual *inochis*. This dialectic implies a kind of universal insight which can be found in religious literature. In appearance, this contention seems paradoxical because it insists on the identity of the whole and its parts. However, contentions of this kind are not so unusual in the context of philosophy and religion.³¹ Instead, we should pay attention to the fact that she grasps the whole as a 'stream', an expression often encountered in other responses and in various *inochi* publications.³² This kind of conceptualization makes it possible to grasp *inochi* as a

31 For example, the holistic thoughts of Leibniz and the Upanishad.

formless and dynamic movement, rather than a simplistic static entity with a clear form.

In the last part of her reply, she allows her vision to soar. She states that one's *inochi* is not confined to one's body and the state of being conscious, but spreads over the realms of influence, perception, one's way of life, and thought. In a sense, this means that *inochi* survives the death of a person, has a lasting influence on other people in our society, and meets other *inochis* somewhere in some universe. According to her understanding, *inochi* is not merely the sum of a functioning body and brain; nevertheless, when she uses the word *inochi*, she restricts the usage strictly to the realm of humanity. She does not refer to the *inochi* of animals, plants, or all creatures. Her religious beliefs may have influenced such an understanding. Hence, her understanding of *inochi* is completely different from that of the farmer cited above, though both stress the importance of a chain or stream of *inochis*.

Here are some other examples interesting in their expressions and imagination.

Humans deprive other creatures of their *inochi* in order to live. Humans defend themselves against other creatures so as not to have their *inochi* attacked. . . . I wish we could live in mutual respect with other creatures. I have to apologize to you, fish-san, cow-san, pig-san, and bird-san,³³ for eating you because of our human egoism. I like meat and fish very much too. We must look like cruel murderers from their point of view. . . . In conclusion, we treasure our own *inochi*, and our civilizations and cultures develop by an egoism of this kind. (30-39/female/nursery school teacher/—)

Inochi and death are two sides of the same coin. . . . All *inochi* beings must die. Why? I live now, I have *inochi* at present because there is death. . . . I think *inochi* suggests waiting for one's death naturally, and living naturally. (20-29/female/nurse/no religion)

It is hard to express, but I feel *inochi* is nearly equal to one's whole life (not completely equal). The end of *inochi* means the end of my life. (10-19/female/student nurse/—)

War. The Republic of South Africa. I don't understand much. I seldom think about it.³⁴ (10-19/male/junior high school student/—)

I understand that all plants, trees, fish, and the green earth have *inochi*. An object has *inochi* even if it is a non-living thing. For example, when I make a doll in cloth, *inochi* begins to exist in it, I think, at the time of the completion of its

32 This expression can be found, for example, in the text of Okuchi (1984: 40) and in Ueda (1989: 93,144); and in the title of Yanase (1988).

33 The word '-san' is a polite suffix used when addressing someone in Japanese.

34 With the drawing of a large '?' at the center.

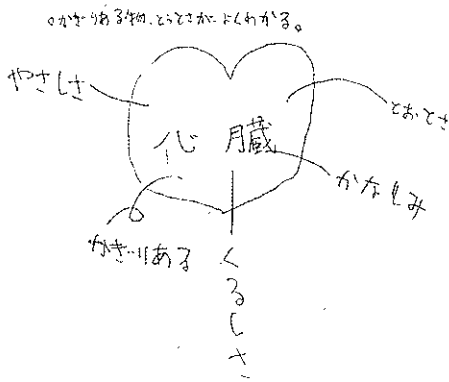


Fig.1. The shape of a heart drawn by a junior high school student.

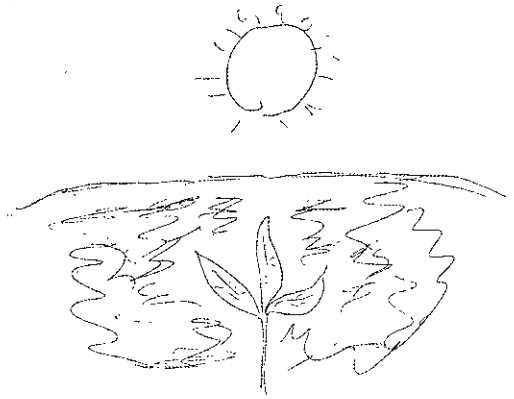


Fig.2. The sun and a seedling drawn by a public sector worker.



Fig.3. A view of nature drawn by a junior high school student.



Fig.4. The earth drawn by a nurse.

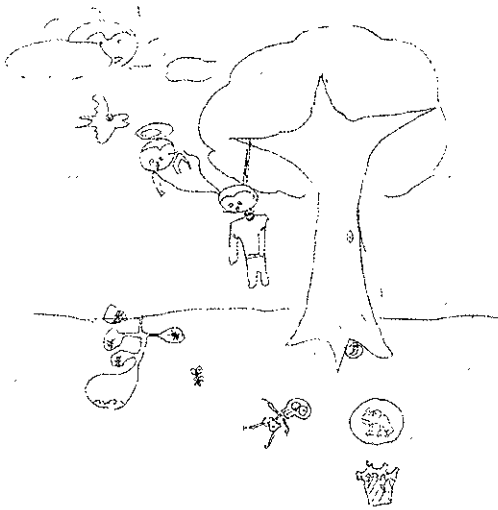


Fig.5. A suicide drawn by a junior high school student.



長歴史の中、生物の「いのち」を
ほんの短い間としよう。

Fig.6. A river-like figure drawn by a junior high school student.

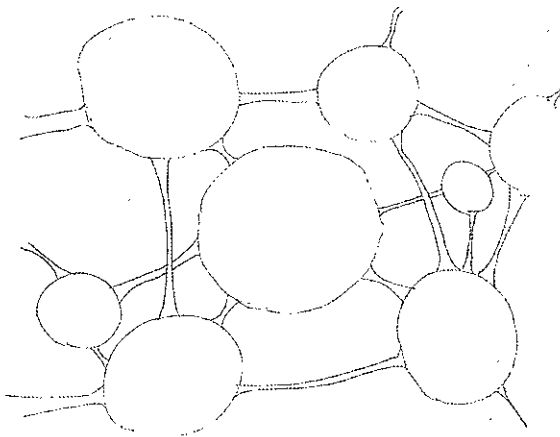


Fig.7. Particles drawn by a male.

human figure. . . . I have experienced miscarriages twice in the last two years. . . . I grew up in a Christian environment, but I am not a Christian. However, I feel that the souls (*inochi*)³⁵ of my children are in Heaven. (30-39/female/housewife/—)

My image of *inochi* is: a red ball just hovering in white space. I feel that it is something very important. (10-19/female/college student/—)

The first respondent refers to human egoism, and the sinful fact that we live at the expense of other creatures, especially animals. Historically speaking, this consciousness goes back to the ancient thoughts of India.³⁶ The respondent relates this human nature to our civilizations and cultures. She presents an important point in connection with the relationship between *inochi* and modern civilization in the study of life.

The second response is interesting in that the respondent regards *inochi* as *almost* equivalent to the state of being alive. That is why she writes *inochi* and death are two sides of the same coin. Some think that *inochi* survives death, and others think that *inochi* ends at the time of death, a contrast already realized in the linguistic meanings of *inochi*. The respondent refers to the 'naturalness' of living and dying. The concepts of 'naturalness' and 'nature' are important factors in the images of *inochi*.³⁷

The third response is another example of considering *inochi* as being nearly equal to the state of being alive.

The fourth response lists only words and short sentences. However, the first word 'war' is shocking. (There is another reply in which only the word 'war' is written in the center of the page.) I suppose that the next words, 'The Republic of South Africa', imply human rights, segregation, violence, killing, unfairness, etc. It is astonishing that the respondent regards these as matters of *inochi*.³⁸

The fifth respondent refers to the *inochi* of a doll, applying the word *inochi* to a non-living thing. We should pay attention to the fact that she equates *inochi* with the soul. On the other hand, she states that all plants, trees, fish, and the green earth have *inochi*, and therefore she seems to think that all creatures have a soul. This is a clear statement of animism. It is interesting that in her animistic image of the world there is a heaven, where the souls of her children live.

The last respondent considers *inochi* a red ball, an image encountered elsewhere in the responses.³⁹

There are some replies which refer to the relationship between *inochi* and scientific (medical) technology. The following are such examples.

35 The respondent herself uses these parentheses here.

36 Nakamura (1987: 212-266)

37 Some Japanese stress this concept in the context of bioethics. See Morioka (1988a: ch.6).

38 I, myself, try to think of these as matters of *inochi* in the study of life.

39 In ancient Japanese there is the word *tama* which means on the one hand 'a ball', and on the other hand 'soul'. *Inochi* has a close relationship to *tama* in Japanese.

(Concerning In Vitro Fertilization technology) I have had a great fear of manipulating ova and sperm which are the origins of *inochi*. (30-39/female/farmer/no religion)

For the present I object to the prolongation of *inochi* forcibly by advanced medicine. However, I don't have any ideas as to what extent we should accept this technology. (40-49/female/housewife/—)

I feel *inochi* when a baby is born. Last month I became sterile because of a uterus disease, and I felt a little lonely as a woman. . . . I considered In Vitro Fertilization to be blasphemous. However I am beginning to think of it as a power given to humans from God. (30-39/female/housewife/Good Light Association)

The first and second replies are negative about the direct invasion of medical technology into *inochi*. The third turns positive. However, the respondents seem to waver in their judgments between positive and negative.

There are replies which contain drawings depicting images of *inochi*. Here I present some of them.

Fig. 1 (10-19/male/junior high school student/—) depicts a heart with the caption "A limited thing. Its preciousness is obvious." At the center of the figure there is the word 'heart', and around it, from left to right, there are five words, 'kindness', 'limited', 'suffering', 'sadness', and 'preciousness'. Among all kinds of figures depicting *inochi*, the shape of a heart appeared most frequently.

Fig. 2 (30-39/male/public sector worker/no religion) depicts the sun, the ground (or grasslands), and a seedling. There are many replies that present the image of *inochi* as that of plants, especially small seedlings.

Fig. 3 (10-19/male/junior high school student/—) depicts a view of nature. Featured are the sun, the moon, stars, the Milky Way, mountains, a river, a hill, cultivated land, flowers, plants and a butterfly. It should be noted that there are no human beings in this scene. It seems that the respondent regards *inochi* as equivalent to nature.

Fig. 4 (20-29/female/nurse/—) depicts the earth from outer space, with a caption "I mean 'the blue earth' hovering in outer space". The respondent seems to regard the earth itself as being *inochi*. This reminds me of the Gaia hypothesis in which the earth itself is considered to be a single organism.⁴⁰

Fig. 5 (10-19/male/junior high school student/—) is a very impressive drawing. At the center there is a big tree, and a man (probably the respondent himself) who has committed suicide by hanging. His soul has just escaped from his body. Around this tree, creatures live independently of, and indifferently to the incident occurring

40 Lovelock (1979).

in the human world. A bird flies under the sun and clouds, ants do their daily work. There is also the larva of a cicada and a frog hibernating under the ground. Deep in the ground, there are human bones and earthenware from ancient ages. Here at least two thoughts are expressed. One is that human death is the most central matter for the image of *inochi*. And the other is that a human's *inochi* is no more than one small incident in the various workings of nature. In this drawing we can see a delicate balance between anthropocentrism and pessimism about human *inochi*.

Fig. 6 (10-19/female/junior high school student/—) is a philosophical reply with a caption "I think a creature's *inochi* lasts only a short period in a long history". Numerous lines which represent each individual creature's *inochi* have been drawn in a river-like figure which contains all individual *inochis*. This represents the long history of *inochi*, or a stream of large *inochi*. We can obtain from this drawing several thoughts, such as the succession of *inochi*, the finiteness and irreplaceability of an individual *inochi*, and the infiniteness of a stream of *inochi*.

Fig. 7 (20-29/male/—/—) depicts several particles linked to each other with strings. This means that *inochi* is an individual particle, and that at the same time it makes up a web of *inochis* connected to each other. This drawing can also be interpreted as a large network of *inochi* with several particles at the points of intersections of *inochi* streams. This drawing has important implications when viewed from a philosophical angle.

Through drawings we are able to grasp more direct and stronger visual images of *inochi* than through words alone. Generally speaking, the younger generation in Japan are very fond of expressing themselves through drawings and cartoons. Hence replies with drawings are important materials for investigating their images of *inochi*.

IMAGES OF *INOCHI* AMONG CONTEMPORARY JAPANESE

—from published materials—

In libraries, bookstores, newspapers, and magazines, we can easily find a number of books and articles which deal with *inochi* and/or matters concerning *inochi*. I have called these '*inochi* publications'. They include books or articles concerning, for example, death, euthanasia, abortion, handicapped people, education, sex, religion, ecology, the global environmental crisis, and the anti-nuclear power movement. They also include pamphlets and word-processor leaflets handed out at meetings. It must be stressed that much literature, and many poems, songs, and advertisements are also to be counted as *inochi* publications.

I have classified these publications into two categories: primary *inochi* publications and secondary *inochi* publications. The former are publications which contain the word *inochi* as a key concept in the title, the table of contents or the text. The latter are publications that deal with subjects and events which could be described by using the word *inochi* as a key word, but actually use another word for it. In this section we examine some of the primary *inochi* publications, and leave the secondary materials to future investigations.

To begin with, let us examine some leaflets from citizens' movements. First, there is a typical understanding of *inochi* in the leaflet entitled "A view of *qi*, No. 2" (1990), issued by a *qi-gong*⁴¹ group, the Green and Healing Circle. In this leaflet, the anonymous secretariat write as follows:

We have realized that all *inochis* are connected and formed into one while each individual *inochi* is voluntary and independent; that all *inochis* are equal in value; that every *inochi* exists in its adequate position giving life to every other; that the human attitude toward nature is the same as the human attitude toward humans themselves; and that our *inochis* get sick and die when greenery gets sick and dies.

Here we see expressed the dialectic of the independence and connectedness of *inochi*, the dynamics of giving life to each other, the inner relationships between our attitude toward nature and ourselves, and the relationship between *inochi* and greenery. The sentences in the leaflet provide simple and clear ideas concerning these subjects which tend to be very popular in *inochi* publications.

The following is part of a written opinion (1989) by a Buddhist monk, Wasei Futamata, for a trial concerning the construction of a nuclear power plant in Ishikawa Prefecture.

The *Jodo-shinshu* sect of Buddhism preaches living and walking with all *inochis*. The words "all *inochi*" mean not only humans' *inochis*, but also all the *inochis* living on this earth. And they also mean not only the present *inochis*, but also those of the future, in thirty, fifty, a hundred, and a thousand years. These *inochis* are our friends whom we have met, are meeting, and are sure to meet in the future, at the bottom of the identical *inochi*. We love and treasure our own *inochi* before anything else. Therefore we must love and treasure all the *inochis*, and must live, praying to be able to walk together.

These sentences show a clear logic for the need to love *inochi*. *Inochi* spreads from humans to all creatures, from the past to the future, and all these *inochis* are our friends. Hence, just as we love our own *inochi*, we must love all the *inochis*.

Let us turn to the books and articles which deal with *inochi* as their main subject. There are a great many such books written in Japanese. The authors include teachers, physicians, priests, novelists, nonfiction writers, journalists, and housewives. For example, Okuchi (1982), Okuchi (1984), Toriyama (1985), Morisaki (1989), Kansha (1987), Kakehashi (1989), Yamamoto (1988), Mizukami (1988), Ueda (1989), and Nakamura (1987) have all published excellent *inochi* books. All these are well worth

41 *Qi-gong*. 气功 (Japanese pronunciation: ki-ko), is a kind of group therapy whose roots go back to ancient traditional Chinese medicine. Participants in *qi-gong*, usually in a group, move their bodies slowly in a mountain setting or a garden, and feel nature's energy and stream (= *qi*). The concept of *qi* has a close relationship to that of *inochi*.

examining. However, I shall leave such an examination for another time. Instead, I shall examine here the most noteworthy *inochi* books I have yet encountered: the Ministry of Education's *Guidelines for Developing a Spirit of Respect for Inochi: for Primary School Students* (1988) and *Guidelines for Developing a Spirit of Respect for Inochi: for Junior High School Students* (1988).

These are guidebooks for school teachers in moral education classes, written by school teachers, professors, and officials of the Ministry of Education. These are excellent *inochi* publications in that the authors have prepared well studied discourses on *inochi*, and have made such discussions simple and practical enough for children to understand.

Before examining these texts in detail, we should pay attention to the following points that appear in these texts. First, in a sense, these books succeeded in producing an excellent summary of today's *inochi* discourses; at the same time, however, some subjects and discourses are intentionally omitted for the purpose of strongly supervising the students (*kanri kyoiku*). For example, we cannot find any *inochi* discourses concerning sex education, environmental pollution from factories, and the safety of nuclear power plants. I suppose the last two subjects were omitted because of the government policy to push forward with industrialization and nuclear power generation, but why sex education was omitted is a mystery. Okuchi (1984) and Toriyama (1985) deal with sex education as one of the most important subjects related to *inochi*. The Ministry of Education's textbooks seem to completely ignore this important topic and should be openly criticized for this omission.

Second, these books have been widely used since 1988 in almost all Japanese primary schools and junior high schools. This means that the replies to our questionnaires from primary and junior high school students may have been deeply influenced by these books. In fact, there are a number of replies that mimic expressions that are to be found in these books. It is difficult to clarify the relation of cause and effect between them, but, nevertheless, we must necessarily take this point into account.

These books do discuss *inochi*, but unfortunately not in a well ordered manner. Hence, I have put in order and classified these discussions into two major categories: (a) properties of *inochi*, and (b) norms of *inochi*.

Properties of *inochi*

The first property is *irreplaceability*.⁴² Only one *inochi* is given to each living thing, and it cannot be replaced by any other *inochi*. Once we lose our *inochi*, we never get it again. It is stressed that every *inochi*, including those of humans and other creatures, is equally irreplaceable, a belief that is expressed by the stock phrase in contemporary Japanese, 'irreplaceable *inochi*'.

The second property is the process of *being born, growing, aging, and dying*, which applies equally to humans, animals, and plants. This understanding is the most basic way of grasping *inochi*.

42 (In Japanese) *kakegae no nasa*.

The third property defines *inochi* as being *beyond the power of humans*. *Inochi* beings neither come into existence of their own will nor do they keep on living of their own will. The writers stress that the existence of *inochi* beings is founded in something which is beyond the power of humans. They seem to be implying a relationship between *inochi* and some religious transcendent being.

Living together in mutual support constitutes the fourth property. *Inochi* beings cannot live without the mutual support networks of *inochi* which spread all over the earth. These networks mean, on the one hand, synchronic mutual support such as human relationships in the family and food chains in the ecosystem. On the other hand, they mean diachronic mutual support found in the passing of generations from parents to their children. From a synchronic point of view, the concepts of 'living together' and 'symbiosis' are stressed. From a diachronic point of view, the concepts of 'succession' and 'taking over' of *inochi* are stressed.

The fifth property is *personality*. Every *inochi* being has its own personality because there is no creature with completely the same figure and appearance as another. Therefore, the writers conclude, every *inochi* is irreplaceable.

The sixth property is *warmth and breath*. The authors of these texts insist that the Japanese have a strong sympathy for warm breathing beings, and refer to the relationship of the concept of breath to the ancient meaning of *inochi*.

Norms of *inochi*

There are three norms of *inochi*.

The first norm is *to treasure inochi*.⁴³ We should treasure all *inochi* on the earth as well as our own *inochi* because each of them is irreplaceable and valuable. Our attitude of treasuring *inochi* will then change into a spirit of respect for *inochi*, and in the end will lead us toward reverence for the great existence that supports *inochi* and nature. This norm is similar to references such as 'respect for life' or 'dignity of life' we encounter in materials on bioethics.

The second norm is *to support each other*.⁴⁴ As *inochi* beings, we should support and help each other in the community and in the ecosystem because we can live only in the midst of the web of all living things. The authors of the two school texts say that one's *inochi* not only belongs to him/herself but also belongs to the family and society, and therefore that it is important to live for others.⁴⁵ They also insist that we should recognize the significance of living together with animals and plants in the wilderness.

The third norm is *to do the utmost in one's power*.⁴⁶ Our *inochi* is finite. *Inochi* beings must die sooner or later, and hence we should do our best at every moment of our life. The following sentences show a sophisticated example of this norm.

43 (In Japanese) *inochi wo taisetu ni suru*.

44 (In Japanese) *sasae au*.

45 This insistence seems to imply a collectivism that might lead to the repression of the basic freedoms of the individual.

46 (In Japanese) *seiippai ni naru*.

As a cicada lives its short life and gives birth to a new *inochi* with all its power, so should I live with all my power in order to hand over my *inochi* to the next generation. I think of treasuring my irreplaceable *inochi*. I think of living, always concentrating on this moment in time. Then will I be able to be content with my *inochi*, and hand it over to the next *inochi*. I want to live at this moment with all my power, and give my *inochi* radiant light.⁴⁷

The assertion here is that we should concentrate on this moment and do the utmost in our power in order to participate in the continuity of *inochi*. In these sentences we find a logical tension between the continuity of *inochi* on a large scale and a bright *inochi* condensed into this moment in time (see also Kakehashi (1989) and Yamamoto (1988)).

These three norms accurately represent the moral aspect of the *inochi* paradigm. Most Japanese have experienced being repeatedly taught these norms by their parents and school teachers when they were young, and consequently these three norms still provoke strong moral standards in today's society. These norms are so strong that few people deny them officially, and those who deny them are considered by society to be either egoists or nihilists, and are subsequently scorned.

I believe these three norms constitute the basis of the moral paradigm on *inochi* in contemporary Japan, and it forms the 'ground of certainty'⁴⁸ of Japanese culture. We researchers must question the 'ground of certainty' itself at least once by examining accepted but unquestioned sets of moral rules that are functioning in a society. For where a paradigm works it can effectively suppress facts which would be detrimental to the paradigm itself.

In this case, the detrimental facts are as follows: (1) We usually waste the *inochi* of animals, fish, and vegetables, and the functioning of our highly industrialized society depends on these wastes of *inochi* and energy. We treasure our own *inochi* and take care of that of our community, but we don't care basically about human *inochi* in other nations. It is obvious that few people in the advanced nations care about human *inochi* in the so-called Third World. (2) Our modern civilization has dominated nature and destroyed innumerable *inochis*, instead of supporting them. We have been using a great deal of fossil energy for our own sake and live an affluent life without regard for future generations. In Japan, we have shut away senile aged people and handicapped people into *shūsetsu* (nursing homes). (3) In Japan, many workers are forced to work with all their power, only to die of hard work. Large numbers of teenagers study so hard night and day to pass entrance examinations that they can only hope for a few hours of good sleep. On the other hand, college students sleep in class, spend money extravagantly and go out seven days a week, not devoting themselves to anything in particular.

These are the facts that the moral paradigm of our society would want to conceal

47 The Ministry of Education (1988b: 25)

48 Wittgenstein (1969), ch.275.

behind a curtain of poetic *inochi* discourses, in case it fails to put them right. Surely these three *inochi* norms are worthy, almost sacred, norms which warn today's society of its wrongful and destructive ways. However, preaching and teaching those norms no longer influences society, because the inclinations of modern civilization described above have become rooted too deeply to be changed by sermons. It is we who have created modern civilization and today's North-South problems. Under the level of morality there lies a bottomless collective unconscious which has created the good and evil of modern civilization. Our investigation must penetrate this level.

TWO REQUIREMENTS FOR THE CONCEPT OF *INOCHI*

We have discovered various concepts of *inochi* in contemporary Japan, some of which contradict each other. I think it impossible and dangerous to attempt to summarize this vast set of images and classify them in patterns at this stage, because it may lead us to discard a number of subtle features which may also prove valuable.

Instead, I present in this section some philosophical interpretations of the concept of *inochi*. These interpretations are based on the conceptual understanding I have acquired through my research on the images of *inochi*.

However, it may be helpful here to briefly summarize some of the main characteristics noted so far. First, there are many people who think that *inochi* is equally given to humans, animals, plants—to all creatures—and that *inochi* beings live by both supporting and killing each other. *Inochi* is energy which keeps creatures alive, and at the same time it means the state of being alive itself. Images of *inochi* have close relationships to birth, growth, aging, and death. One's *inochi* is irreplaceable, important, and beyond our power. It is finite, but at the same time it is connected to others in space and time forever.

Let us turn to some philosophical examinations. Two requirements must be fulfilled for something to be called *inochi*. First, *inochi* must be a 'phase', not an object nor an entity. *Inochi* is not an object such as a book, a flower, or a rabbit, but a phase which a flower and a rabbit enjoy. In the responses to my questionnaire, most respondents use the word '*inochi* being', rather than '*inochi*', when they explicitly indicate an object that has *inochi*. This suggests that *inochi* is considered to be a kind of phase or aspect which *inochi* beings must possess. Then, we have to go on to ask, in turn, what are '*inochi* beings'?

'*Inochi* being' is a concept which includes humans and other creatures as its core, and also includes the sea, air, the ecosystem, the earth and the universe at its fringe. What features stand out prominently when we put humans and other creatures at the core, and others at the fringe? The most moderate answer would be: a phase in which they are born, grow, give birth, age, and die. Of course, even the earth and stars are born, age, and die, but we can grasp this phase more vividly in humans and other creatures than we can in the stars. Hence, the first requirement is: *inochi must be a phase in which things are born, grow, give birth, age, and die. Inochi* beings are those

things in the universe that are viewed in this phase.⁴⁹ For example, if we regard a rabbit jumping in front of us as an animal in a growing stage, we have grasped it as an *inochi* being. Similarly, if we regard a star as a being which was born a long time ago, grows, gives birth to planets, ages to become a neutron star, and dies, we have grasped it as an *inochi* being. If you believe that all creatures were born through intercourse between the North Pole liquid and the South Pole liquid of the earth, as Fourier did,⁵⁰ then you regard the earth as an *inochi* being.

This means that an *inochi* being is not necessarily equal to a creature as perceived by most people. A creature can be a non-*inochi* being when we do not regard it as being part of this phase. For example, even a living rabbit can be a non-*inochi* being to a biochemist in a laboratory, who regards it only as an aggregate of biochemical substances. We should pay attention to the phrase 'to a biochemist', because the concept of '*inochi* being' is an observer-relative concept. A thing becomes an *inochi* being for the observer only if it is viewed within the phase of *inochi*. Hence, a thing can be an *inochi* being for one person, but not for another. If *inochi* being is an observer-relative concept, the extent of *inochi* beings cannot be defined objectively and unanimously, independently of the observer. Therefore we have the case where some think of all living things as *inochi* beings, while others restrict the extent to humans. Both are correct. No contradiction exists in this usage.

The second requirement is that *inochi must possess the characteristics of both finiteness and infiniteness*. Finiteness means the discontinuity and limitation of the individual *inochi* being. Infiniteness means the succession of and inter-relationships between the many networks of *inochi* beings. Throughout the responses to the questionnaires and the publications cited, the co-existence of these two characteristics is repeatedly emphasized.

Let us consider the finiteness of *inochi* first. *Inochi* is finite in time in that all *inochi* beings must die sooner or later. In the linguistic examination of *inochi*, we came across one connotation of the state of being alive, during the period between birth and death. This was reinforced by many responses which stated the same. *Inochi* is finite in space as well. In this sense, a rabbit's *inochi* is not the same as mine or yours. You may die while I still live. Our *inochis* are divided in space, and in this regard we are alone.⁵¹

On the other hand, *inochi* is also infinite. First, it is infinite in time. In the responses and publications it is evident that *inochi* is seen as being handed down from one generation to another, with the succession of *inochi* going on forever. This succession consists of physical inheritance, the succession of power and energy, spiritual influence, a way of life, reminders, culture, and so on. *Inochi* is infinite in space too. A web of *inochi* spreads to include all individual *inochi* beings in the form of food

49 In the previous sections I have not strictly differentiated '*inochi*' and '*inochi* being', because the respondents and the writers themselves have not strictly differentiated these concepts.

50 Fourier (1846).

51 This point is closely connected to the I-thou problem in philosophy. See Morioka (1988a) ch. 9; Morioka (1987b).

chains and exchanges of chemical substances. The extension of this web can be considered to spread over the whole universe.

For something to be recognized as *inochi*, it should have both these characteristics at once. Recall the assertion of the *qi-gong* group, that “all *inochis* are connected and formed into one while each individual *inochi* is voluntary and independent”, and the words of one of the respondents: “*Inochi* is, on the one hand, each individual being, unique and irreplaceable. On the other hand, however, it is one large *inochi* of the whole human race”. These sentences clearly illustrate the second requirement for the concept of *inochi*, the dialectic of finiteness and infiniteness.

Hence, we can propose *the two requirements for the concept of inochi* as follows.

- (1) *Inochi must be a phase in which things are born, grow, give birth, age, and die.*
- (2) *Inochi must possess the characteristics of both finiteness and infiniteness.*

All things in the universe which satisfy both these requirements should then be identified as *inochi* beings. This formula can thus be understood as a proposed definition of *inochi*. However, it should be noted that this concept or definition of *inochi* does not cover all usages of the word ‘*inochi*’ to be found in the questionnaire responses and publications. It is impossible to discover a simple set of formulae which covers all usages of *inochi*. Rather I suggest that this proposed definition be regarded as a basic guideline for the use of the term in research and discussions on the topic.⁵² Since this definition is open to free criticism, it may be altered in the future.

We should keep in mind that this formula, determined by the above requirements, stands for only the *necessary conditions* of the concept of *inochi*. Hence I will now turn to the topic of the *essence* of the concept of *inochi*.

METAPHYSICAL INTERPRETATIONS OF THE CONCEPT OF *INOCHI*

In this section I interpret the dialectic of finiteness and infiniteness of the concept of *inochi* metaphysically, and elucidate its inner structure.

Inochi must possess the characteristics of both finiteness and infiniteness. This seems to suggest that A is B and not B. Hence the necessity of making clear the logical relationship between ‘finiteness’ and ‘infiniteness’ in relation to the concept of *inochi*.

52 There may be some people who regard *inochi* only as the state of being alive, and do not accept in it any kind of infiniteness at all. On the contrary, there may be those who regard *inochi* only as a large stream, and completely deny its finiteness. These usages should be considered wrong because they do not follow our guidelines on the usage of the word *inochi*. Of course there are a number of responses that refer only to either finiteness or infiniteness, but I believe this does not necessarily mean that the respondent denies the opposite. I suppose they simply stress one side of its character.

Let us take the example of a flower. There is a flower before me. The word 'a flower' suggests that I should understand it as an individual *inochi* being. This flower will shrivel and die someday. When it dies, nothing else will be able to die for it. The flower must die its own death, only once, and never live again the same existence in this world. This means that the whole life and death of this flower is irreplaceable. This suggests further that every moment of its life is irreplaceable because no other flower will be able to live again the same course of life as this flower. Inevitable death makes every moment of life irreplaceable for an *inochi* being. Therefore, irreplaceability, derived from the finiteness of time and space, must be considered to be one of the most basic features of *inochi*. This was, in fact, supported by many of the questionnaire responses and found often in the publications.

Now let us regard this flower from another angle. This flower is living now because a part of its life was passed down from its ancestors in the form of a seed. Without its ancestors and their seeds, this flower would not exist at all. This flower will also distribute its own seeds before dying, and some of them will grow to be flowers somewhere on this earth. Even if it doesn't distribute seeds, the influences of its photosynthesis and metabolic functions will have irreversible effects on the environment, and these effects will cause other small effects in succession, forever, throughout the universe. Moreover, in order to live, this flower has to exchange air, minerals, and other chemical matters with the environment and other creatures. Without the web of *inochi* beings surrounding it this flower cannot live. We consider interrelatedness of this kind, derived from the infiniteness of time and space, to be another most basic feature of *inochi*.

All *inochi* beings are on the one hand irreplaceable, and on the other hand interrelated. Expressions such as 'the period between birth and death' and 'the most essential part of an object' are corollaries of, or ideas related to, 'irreplaceability'. Expressions such as 'mysterious power or energy' and 'eternal life' are corollaries of, or ideas related to, 'interrelatedness'. Also recall the properties of *inochi* found in the books issued by the Ministry of Education. They expressly state the 'irreplaceability' of *inochi*. The properties of 'beyond the power of humans' and 'personality' are also directly related to this idea, and 'living together in mutual support expresses interrelatedness'.⁵³

To regard an *inochi* being from the viewpoints of irreplaceability and interrelatedness is to consider it always against the background of the universe. This leads us to a metaphysical or religious view of *inochi*, because it makes us realize the position *inochi* possesses in the universe.

The *inochi* of the flower is *irreplaceable* in that it lives and dies only once in this universe. Its *inochi* is *interrelated* in that it cannot exist without its ancestors, and it cannot live without an environment full of water, air, light, and other *inochi* beings such as microbes; and in that even after its death its *inochi* allows other *inochi* beings,

53 The other properties, 'birth, growth, aging, and death' and 'warmth and breath', belong to the first requirement.

such as animals or microbes, to live. A flower appears and disappears only at a particular place in the universe. And it can only exist by being interwoven in the infinite web of *inochi* that spreads throughout the universe.

Take another case, that of a terminally ill patient in a hospital. He is conscious but his days are short. His *inochi* is *irreplaceable* because he has lived a life full of ups and downs, is dying here at the hospital alone, and after his death he will never live again the same life in this world. He is sometimes seized with a strong fear of death, and attempts to give some meaning to his whole life in order to reconcile himself to it. His *inochi* is *interrelated* in that he remains alive with the help of medical equipment and the medical staff, and in the sense that his spirit is healed by the smile of a nurse, or that his condition makes his family happy or sad. He will die an irreplaceable and interrelated death.

To live and die is to lead one's own life only once in space and time. To live and die is to lead one's own life in the midst of infinite networks of *inochi* in the universe.

Here arise the following metaphysical questions. What is it that makes *inochi* irreplaceable? What is it that makes *inochi* interrelated?

Inochi becomes irreplaceable when an *inochi* being is interrelated to others; that is to say, it is interwoven in the infinite networks of *inochi* in space and time, supporting and killing each other. *Inochi* becomes interrelated when an *inochi* being is irreplaceable; that is to say, it lives and dies its own life only once in the universe, not as parts which can be replaced with another being. In other words, the irreplaceability of *inochi* comes into existence because all *inochi* beings are interrelated in the universe. The interrelatedness of *inochi* comes into existence because each individual *inochi* being is irreplaceable. What these sentences suggest is that the two basic properties of *inochi* are metaphysically grounded in each other, and that there is no other factor upon which these properties are transcendently grounded. *Inochi* is irreplaceable because it is interrelated. *Inochi* is interrelated because it is irreplaceable. This is a circular argument. However the ultimate metaphysical grounds of a conceptual framework should be either transcendent *a priori* or circulative. The metaphysical interpretation I select is the latter. I shall consider these propositions to be the metaphysical structure of *inochi*. The definition of this structure is as follows.

Inochi is irreplaceable because it is interrelated. Inochi is interrelated because it is irreplaceable.

I hope that this proposed structure will become a source for a way of thinking which lets a dying person, who does not have any particular religion, die peacefully. However, this will be a future challenge in the study of life.⁵⁴

Almost all things in the universe can be seen as growing, aging, dying, irreplaceable, and interrelated in a certain sense. If a person regards everything in the universe

54 This structure reminds me of the well-known passage "Matter is empty. Empty is matter," from the *Prajna Paramita Hrdaya Sutra*. (In Chinese 色即是空 空即是色). However, these two ideas have different contexts, and therefore cannot be identified easily.

as being irreplaceable and interrelated, then he/she regards everything in the universe (and the universe itself) as an *inochi* being. It should also be noted that something can be irreplaceable from one angle and replaceable from another angle. For example, a pig in a farm is irreplaceable as an individual *inochi* being, but replaceable as food for today's lunch.

In the rest of this section I would like to suggest other possibilities of interpreting metaphysically the second requirement of the concept of *inochi*. To regard something as irreplaceable means to grasp it as an individual thing. We can grasp an individual thing by separating it from its various relationships with the environment, and by fixing the subject with a modifier 'this' or 'that'. For example, we used the words 'this flower' when referring to the individual *inochi* being of a particular flower. Using these words we distinguish it from its environment and other flowers. In this way we can clarify the individuality of things, and thus, the subject of dying. I call this feature of *inochi* 'individuality'.

On the other hand, to regard something as interrelated means to grasp it as a web or network which spreads infinitely throughout the universe. Each individual *inochi* being melts into the web, becoming nothing but a tentative knot in this complicated network. I call this feature of *inochi* 'sphere'. Sphere has no boundaries because the network of *inochi* spreads infinitely throughout the universe.

This analysis suggests that *inochi* is structured in the universe through 'individuality' and 'sphere'. The axes of individuality and sphere are independent, not reducible to each other. In stressing the characteristic of individuality, we are led to an atomistic or an individualistic approach to *inochi*. When we stress the characteristic of sphere, on the other hand, we are led to a holistic approach to *inochi*. The same is true in environmental ethics. When we stress the importance of the individuality of creatures, including humans, we are faced with so-called anthropocentric environmental ethics.⁵⁵ When we stress the importance of the sphere of ecological communities and ecosystems, we are led to so-called biocentric environmental ethics.⁵⁶ I have previously insisted that we should stress both these sides of *inochi*, individuality and sphere, equally; and that it is necessary to solve the conflict between these two principles.⁵⁷ The elucidation of conflict and harmony between individuality and sphere in the context of *inochi*, however, will have to be left to future discussions.

Rather, I would like here to interpret individuality and sphere in a visual or sensory way. One image of individuality is that of a particle which has a clear boundary. Recall the respondent who pictured *inochi* as a red ball just hovering in white space. This is an image of a particle which stands for a static subject that is destined to die.⁵⁸ On the other hand, there was also an image of a stream flowing from

55 For example, Singer (1974).

56 For example, Leopold (1949) and Callicott (1989). As for 'anthropocentric' and 'biocentric', see Taylor (1986). Naess (1973) and Goodpaster (1979) use the terms 'shallow' and 'deep'.

57. Morioka (1988b). In this book I used the term 'the principle of others' and 'the principle of biosphere', corresponding to individuality and sphere respectively. We can find a good example of the solution to this conflict in Taylor (1986).

one *inochi* being to another. The web of *inochi* constitutes a dynamic and complicated stream, a stream which does not stop moving. It flows forever, slowly or rapidly, penetrating *inochi* beings, spreading over the universe.⁵⁹

Hence, in this interpretation, *inochi* is a particle at one time, a flowing stream at another. But *inochi* in the form of a particle and *inochi* in the form of a stream are the same thing, not different objects: A flowing stream becomes a particle. A flowing stream penetrates particles. A particle draws in and sends out streams incessantly. A particle changes into a stream. These are four types of relations that can be found in this *inochi* world in the particle-stream context. Figure 7, which we examined above, is a good example of visual images of *inochi* realized in the forms of particles and streams.

Inochi as a particle and stream maintains a close relationship with *inochi* as the energy of breath, which we examined in the section on linguistic meanings. "On the one hand, breath makes an individual creature alive inside its body, but on the other hand, breath flows out of an individual and then slips into another individual's body." The former stands for *inochi* as a particle, and the latter stands for *inochi* as a stream. The moving energy of breath changes into *inochi* as a stream, and the settling energy of breath changes into *inochi* as a particle.^{60,61} When settling, *inochi* becomes a *subject* and acquires irreplaceability. When moving, *inochi* becomes the *hidden environment* and acquires interrelatedness. On accepting the above proposition, research into the subject-environment relationship from the viewpoint of *inochi* will be made possible. It will no doubt have a great influence on environmental ethics and the philosophy of science.

This metaphysical grasp of *inochi* further implies that our recognition of *inochi* beings would be different from the standard subject-object cognition model. For example, when I perceive something, traditional philosophical theories teach us that this perception is achieved by sense-data or qualia traveling from the object to my sensory organs and finally arriving at my brain. This means that cognition is achieved in a one-way direction from the object to the subject, and that the subject and the object are completely different in essence. This is the basic idea of cognition models.

58 This does not mean that this particle is an entity, because *inochi* is a phase, an observer-relative concept. This means that this particle is made up of a phase, not of an entity.

59 The image of the stream of *inochi* appeared clearly in the texts of *Zhu Zi* (12c.) in China, and some texts of Confucianists (17-18c.) in the Edo period in Japan, as the stream of *qi*. I plan to make clear the relationship between the concept of *inochi* and *qi* in the context of Confucianism. Callicott and Ames (1989) present important material for investigating this subject.

60 These explanations are very similar to the metaphysics of *Zhu Zi*, who reinterpreted traditional Chinese thought. He says that when formless *qi* settles it forms a human being. According to Ohama (1983: 73), *Zhu Zi's qi* is a formless movement flowing through all time, filling all space. Traditional understandings of *qi* in China have obviously influenced our images of *inochi*.

61 This dialectic of particle and stream reminds me of the so-called Copenhagen School's interpretation of the quantum theory that the ultimate existence of matter is a particle from one angle, and a wave from the other angle.

However, in the case of *inochi*, we should take account of another factor, that is to say, the fact that both the object and the subject are *inochi* beings. In other words, this perception model must be such that an *inochi* being perceives another *inochi* being. This means that the perceiver and the perceived are equal in existence from the viewpoint of *inochi*. Therefore, in the perception model of *inochi* the cognition must be attained by some kind of combination of two *inochi* beings, the perceiver and the perceived.

The particle and stream model of *inochi* thus would be implemental in the construction of another model of perception. Let us once again consider the case of the flower. I am an *inochi* being in the form of a particle, and the flower takes the form of another. When two particles face each other, a stream forms a bridge between them, and the two particles are combined by a flowing stream penetrating them both. When two particles of *inochi* touch each other in the form of a stream, I call this the 'touch model of perception'.⁶² Toriyama used the word 'touch' in the title of her book *Touching Inochi* (1985) to indicate that *inochi* is not an object which can be looked at, but should be touched and felt. However, here it should be noted that in our model particles do not touch each other directly, but that they touch each other in the form of streams passing between them. Hopefully, in the future, this model will constitute a theory of cognition: one that confronts the philosophy and psychology of cognition which has thus far proved insufficiently comprehensive.^{63,64}

A PERSPECTIVE OF THE STUDY OF LIFE

Before closing, I would like to describe here a brief outline of 'the study of life' which I have advocated since 1988, and which provides the framework for this paper.

The study of life does not deal with restricted academic subjects that belong to any one traditional discipline. Instead, it deals with all subjects concerning 'life' comprehensively, from various points of view, with the help of knowledge from each academic discipline. Hence the study of life is open to various methods of research, such as philosophical analysis, religious contemplation, social fieldwork and clarification through scientific investigation. The study of life will deal with difficult

62 We should note that phenomenology had to reappraise the importance of 'tangible' feelings when examining the concept of body. See Merleau-Ponty (1945).

63 These contentions appear extremely strange from the viewpoint of orthodox philosophy. However, it is also true that in some of my interviews some nurses reported experiences with patients such as described here in the text. This topic has a close relation to the theory of nursing and the philosophy of caring. I am in the process of preparing a paper which deals with this topic.

64 It is interesting that J. Locke, one of the founders of the modern cognitive theory, stresses the 'power' in an object which produces ideas in the observer's mind. This concept of Locke's can be understood in a vitalistic way as has been made apparent in this paper. See Nidditch (1975), ch. 8, sec. 8.

problems concerning bioethics, environmental issues, terminal care, health policy, the sociology of science, genetic engineering, the psychology of the environment,⁶⁵ medical anthropology, the history of life, war and peace, violence, and many other subjects.

Today's problems concerning life share a number of closely connected factors. Therefore we can neither solve nor even grasp these problems if we persist in just one academic specialty and restrict our attention to the subjects that are supposed to belong to it. Only a comprehensive approach will yield rewarding results.⁶⁶

In order to research such problems comprehensively, I have proposed that a number of researchers who are interested in this approach (this should include such people as academicians, journalists, specialists, and lay persons) form research networks and then exchange arguments and information. I have also proposed that these networks should work as non-governmental organizations, and not constitute a fixed academy or discipline.

I have defined the study of life as a study which researches the present relationship between humans and life, and also the types of relationship we should form in the future, in the context of modern civilization with science and technology (1988a). In order to do this, we need to study the history of the relationships between humans and life (*inochi* beings) and clarify the historical meanings of these relationships. For example, we should study the history of agriculture, medicine, religion, and war from the viewpoint of the study of life. We also need to study present issues concerning life, by investigating gene technology, bioethics, global environmental problems, our attitudes toward nuclear weapons and nuclear energy plants, and so on. Then we should go on to propose what relationship we should form with life, scientific technology, and civilization in the future. At the same time, there is also a need to study images and concepts of life from the past to the present. We can study the present images and ideas of life through sociological and ethical investigations from around the world. We should also examine the world history of ideas involving the concepts or understandings of life. Moreover, we are always faced with the subject of how to live and die on this limited earth in finite space and time. To address this we must reexamine our lifestyles in modern society as well as our ways of dying.

This paper falls under the study of images and ideas of life. In it I have attempted to analyze this subject cultural-anthropologically, philosophically, and religiously. This is the kind of investigation that should be representative in the study of life.

The problems of life in a global age concern almost all subjects, and have considerable diversity. They contain both micro-level problems such as the existence

65 For example, J. E. Mack's draft, 'Inventing a Psychology of the Environment', read at the Center for Psychological Studies in the Nuclear Age (May 3, 1990, at Harvard University), refers to this subject.

66 In this connection, I was very impressed at the first Council of the Europe Symposium on Bioethics, in 1989, when a participant insisted from the floor that we should also deal with ecological issues, and the chairman rejected it outright.

of certain molecules in a DNA sequence, and macro-level problems such as the maintenance of the biosphere of the earth. They also contain such bioethical problems as the withdrawing of life support systems from a severely handicapped newborn; and such environmental problems as toxic and radioactive substances which will condense and settle in the biosphere at a slow pace.

These problems have two features. We can, on the one hand, grasp them by paying attention to facts and situations in our daily life, because all these problems have some relationship to everyday life. For example by paying attention to the situation of everyday water and food, we can discover environmental pollution in the local areas. Japan is also beginning to encounter more and more the problem of senile or terminally ill patients who must be cared for in the home.

On the other hand, it is only possible for us to grasp most of these problems in our imagination. For example we cannot look at the defects of genes of an embryo directly. Most of us have not directly seen a brain-dead person in an Intensive Care Unit, nor have we seen the actual destruction of a rain forest. We know of these things only through books, articles, and TV programs. Through discussions we are continuously constructing these images in our imaginations. In a sense, global environmental issues and the problems of advanced medicine exist only in our imaginations, as we have no real experience of them.

This suggests that we should pay attention to our everyday life, with all the power of our imagination, in order to grasp the shape of problems in their entirety. This means further that we will then come to an era in which we discover and solve a problem with the help of a combination of a variety of imaginative perceptions. In this sense the study of life should prove to be an intellectual activity in the era of imagination.

I have stated that the study of life must be a study by which all *inochi* beings can live a better life and die a better death (1988b). I believe this sentiment expresses the ultimate aim of the study of life. This paper is only a first step toward achieving such an aim.

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いのちの概念

森岡正博

要旨：本論文の目的は、現代日本における「いのち」のイメージと概念を検討することによって、生命と科学技術をめぐる国際的議論に貢献することにある。英語の'life'に当たる日本語は「いのち」である。しかし、「いのち」と'life'のニュアンスは場合によって異なるので、本論文では「いのち」という言葉を用いて議論を進めることにする。我々はまず「いのち」の語義上の意味を検討し、我々の行ったアンケート調査や出版物の中に現れた「いのち」のイメージの、いくつかの重要な特徴について考察する。ついで、我々は「いのち」の概念の哲学的・形而上学的解釈を提案する。最後に、生命学の簡単なアウトラインを紹介し、生命倫理や環境問題に関する諸問題を研究する新しい方法を示唆する。